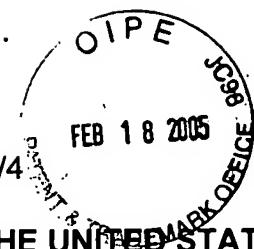


019194 00003/4



Reexamination

THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Perry et al. Reexamination Proceeding

Control No.: 90/006,192

Filed: January 14, 2002

For: U.S. Patent No. 6,160,621

In re reissue application of Perry et al.

Application No.: 10/603,740

Filed: June 26, 2003

For: U.S. Patent No. 6,160,621

Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Dear Sir:

HOUSEKEEPING AMENDMENT

In response to the Decision Merging Reexamination and Reissue Proceedings mailed February 14, 2005, please enter the following amendment in both the Reexamination Proceeding Control No. 90/006,192 and Reissue Application No. 10/603,740 so that identical amendments are in both files.

In the Claims

Please cancel claims 1, 2, 11, 12, 21, and 22 and amend the following claims:

3. (Amended) [A process monitor according to claim 2] A process monitor for determining process parameters during a plasma etch process of a wafer, the process monitor comprising:

a flash lamp emitting a broad-band optical radiation;

a spectrograph responsive to optical radiation reflected from the wafer;

a data processing element for processing a first signal from the spectrograph, the first signal representative of emitted optical radiation reflected from the wafer, and determining a process parameter; and

a beam forming module operable to collimate the emitted optical radiation
wherein the collimated optical radiation is incident normally to the wafer.

4. (Amended) [A process monitor according to claim 1] A process monitor for determining process parameters during a plasma etch process of a wafer, the process monitor comprising:

a flash lamp emitting a broad-band optical radiation;

a spectrograph responsive to optical radiation reflected from the wafer;

a data processing element for processing a first signal from the spectrograph, the first signal representative of emitted optical radiation reflected from the wafer, and determining a process parameter wherein a spectrograph integration period is synchronized to the flash lamp.

5. (Amended) [A process monitor according to claim 1] A process monitor for determining process parameters during a plasma etch process of a wafer, the process monitor comprising:

a flash lamp emitting a broad-band optical radiation;

a spectrograph responsive to optical radiation reflected from the wafer;

a data processing element for processing a first signal from the spectrograph, the first signal representative of emitted optical radiation reflected from the wafer, and determining a process parameter wherein a second signal

representative of optical radiation reflected from the wafer during a period when the flash lamp is not emitting broad-band optical radiation is processed by the data processing element and subtracted from the first signal to determine a process parameter.

6. (Amended) A process monitor according to claim [1] 5 wherein a third signal representative of the intensity of the emitted radiation is processed by the data processing element to normalize the first signal.

8. (Amended) A process monitor according to claim [1] 5 wherein the process parameter further comprises a thickness of a layer carried by the wafer.

9. (Amended) [A process monitor according to claim 1] A process monitor for determining process parameters during a plasma etch process of a wafer, the process monitor comprising:

a flash lamp emitting a broad-band optical radiation;

a spectrograph responsive to optical radiation reflected from the wafer;

a data processing element for processing a first signal from the spectrograph, the first signal representative of emitted optical radiation reflected from the wafer, and determining a process parameter; and

a beam forming module operable to collimate the emitted optical radiation
wherein the process parameter further comprises an etch rate of a layer carried by the wafer.

10. (Amended) A process monitor according to claim [1] 9 wherein the process parameter further comprises a process endpoint.

13. (Amended) [A process monitor according to claim 12] A process monitor for determining process parameters during a plasma deposition process of a wafer, the process monitor comprising:

a flash lamp emitting a broad-band optical radiation;

a spectrograph responsive to optical radiation reflected from the wafer;
a data processing element for processing a first signal from the
spectrograph, the first signal representative of emitted optical radiation reflected
from the wafer, and determining a process parameter; and
a beam forming module operable to collimate the emitted optical radiation
wherein the collimated optical radiation is incident normally to the wafer.

14. (Amended) [A process monitor according to claim 11] A process monitor for
determining process parameters during a plasma deposition process of a wafer, the
process monitor comprising:

a flash lamp emitting a broad-band optical radiation;
a spectrograph responsive to optical radiation reflected from the wafer;
a data processing element for processing a first signal from the
spectrograph, the first signal representative of emitted optical radiation reflected
from the wafer, and determining a process parameter and wherein a
spectrograph integration period is synchronized to the flash lamp.

15. (Amended) [A process monitor according to claim 11] A process monitor for
determining process parameters during a plasma deposition process of a wafer, the
process monitor comprising:

a flash lamp emitting a broad-band optical radiation;
a spectrograph responsive to optical radiation reflected from the wafer;
a data processing element for processing a first signal from the
spectrograph, the first signal representative of emitted optical radiation reflected
from the wafer, and determining a process parameter and wherein a second
signal representative of optical radiation reflected from the wafer during a period
when the flash lamp is not emitting broad-band optical radiation is processed by
the data processing element and subtracted from the first signal to determine a
process parameter.

16. (Amended) A process monitor according to claim [11] 15 wherein a third signal representative of the intensity of the emitted radiation is processed by the data processing element to normalize the first signal.

18. (Amended) A process monitor according to claim [11] 15 wherein the process parameter further comprises a thickness of a layer carried by the wafer.

19. (Amended) [A process monitor according to claim 11] A process monitor for determining process parameters during a plasma deposition process of a wafer, the process monitor comprising:

a flash lamp emitting a broad-band optical radiation;

a spectrograph responsive to optical radiation reflected from the wafer;

a data processing element for processing a first signal from the spectrograph, the first signal representative of emitted optical radiation reflected from the wafer, and determining a process parameter and wherein the process parameter further comprises a deposition rate of a layer carried by the wafer.

20. (Amended) A process monitor according to claim [11] 19 wherein the process parameter further comprises a process endpoint.

23. (Amended) [A method of monitoring a process a recited in claim 22] A method of monitoring a process and for determining process parameters during a plasma process of a wafer, the method comprising:

providing a flash lamp emitting a broad-band optical radiation;

providing a spectrograph responsive to optical radiation reflected from the wafer;

providing a data processing element for processing a first signal from the spectrograph, the first signal representative of emitted optical radiation reflected from the wafer, and determining a process parameter; and

providing a beam forming module operable to collimate the emitted optical radiation wherein the collimated optical radiation is incident normally to the wafer.

24. (Amended) [A method of monitoring a process as recited in claim 22 further comprising] A method of monitoring a process and for determining process parameters during a plasma process of a wafer, the method comprising:

providing a flash lamp emitting a broad-band optical radiation;

providing a spectrograph responsive to optical radiation reflected from the wafer;

providing a data processing element for processing a first signal from the spectrograph, the first signal representative of emitted optical radiation reflected from the wafer, and determining a process parameter and synchronizing a spectrograph integration period to the flash lamp.

25. (Amended) [A method of monitoring a process as recited in claim 21 further comprising] A method of monitoring a process and for determining process parameters during a plasma process of a wafer, the method comprising:

providing a flash lamp emitting a broad-band optical radiation;

providing a spectrograph responsive to optical radiation reflected from the wafer;

providing a data processing element for processing a first signal from the spectrograph, the first signal representative of emitted optical radiation reflected from the wafer, and determining a process parameter and processing a second signal representative of optical radiation reflected from the wafer during a period when the flash lamp is not emitting broad-band optical radiation and subtracting the processed second signal to determine a process parameter.

26. (Amended) A method of monitoring a process as recited in claim [21] 25 further [comprising] processing a third signal representative of the intensity of the emitted radiation to normalize the first signal.

28. (Amended) A method of monitoring a process as recited in claim [21] 25 wherein the process parameter further comprises a thickness of a layer carried by the wafer.

29. (Amended) [A method of monitoring a process as recited in claim 21] A method of monitoring a process and for determining process parameters during a plasma process of a wafer, the method comprising:

providing a flash lamp emitting a broad-band optical radiation;

providing a spectrograph responsive to optical radiation reflected from the wafer;

providing a data processing element for processing a first signal from the spectrograph, the first signal representative of emitted optical radiation reflected from the wafer, and determining a process parameter wherein the process parameter further comprises an etch rate of a layer carried by the wafer.

30. (Amended) [A method of monitoring a process as recited in claim 21] A method of monitoring a process and for determining process parameters during a plasma process of a wafer, the method comprising:

providing a flash lamp emitting a broad-band optical radiation;

providing a spectrograph responsive to optical radiation reflected from the wafer;

providing a data processing element for processing a first signal from the spectrograph, the first signal representative of emitted optical radiation reflected from the wafer, and determining a process parameter wherein the process parameter further comprises a deposition rate of a layer carried by the wafer.

31. (Amended) A method of monitoring a process as recited in claim [21] 30 wherein the process parameter further comprises a process endpoint.

Remarks

Allowance of claims 3 – 10, 13 – 20 and 23 – 31 pending in this application is respectfully requested. If the examiner has any questions regarding this reissue application, the examiner is respectfully requested to telephone the undersigned attorney for applicant.

Respectfully submitted,

LOCKE LIDDELL & SAPP LLP
Attorneys for Applicant



Martin Korn
Registration No. 28,317

Date: February 17, 2005
2200 Ross Avenue, Suite 2200
Dallas, TX 75201-6776
214-740-8549 Telephone
214-756-8549 Direct Facsimile
214-740-8800 Facsimile

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it displays a valid OMB control number.

TRANSMITTAL
FORM

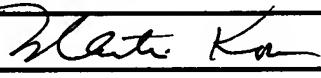
(to be used for all correspondence after initial filing)

		Application Number	90/006,192
		Filing Date	January 14, 2002
		First Named Inventor	Andrew Perry et al.
		Art Unit	
		Examiner Name	Lynn M. Kryza
Total Number of Pages in This Submission	10	Attorney Docket Number	019194.00003/4

ENCLOSURES (Check all that apply)

<input type="checkbox"/> Fee Transmittal Form	<input type="checkbox"/> Drawing(s)	<input type="checkbox"/> After Allowance Communication to TC
<input type="checkbox"/> Fee Attached	<input type="checkbox"/> Licensing-related Papers	<input type="checkbox"/> Appeal Communication to Board of Appeals and Interferences
<input type="checkbox"/> Amendment/Reply	<input type="checkbox"/> Petition	<input type="checkbox"/> Appeal Communication to TC (Appeal Notice, Brief, Reply Brief)
<input type="checkbox"/> After Final	<input type="checkbox"/> Petition to Convert to a Provisional Application	<input type="checkbox"/> Proprietary Information
<input type="checkbox"/> Affidavits/declaration(s)	<input type="checkbox"/> Power of Attorney, Revocation	<input type="checkbox"/> Status Letter
<input type="checkbox"/> Extension of Time Request	<input type="checkbox"/> Change of Correspondence Address	<input checked="" type="checkbox"/> Other Enclosure(s) (please identify below): Houskeeping Amendment
<input type="checkbox"/> Express Abandonment Request	<input type="checkbox"/> Terminal Disclaimer	
<input type="checkbox"/> Information Disclosure Statement	<input type="checkbox"/> Request for Refund	
<input type="checkbox"/> Certified Copy of Priority Document(s)	<input type="checkbox"/> CD, Number of CD(s) _____	
<input type="checkbox"/> Reply to Missing Parts/ Incomplete Application	<input type="checkbox"/> Landscape Table on CD	
<input type="checkbox"/> Reply to Missing Parts under 37 CFR 1.52 or 1.53	<input type="checkbox"/> Remarks	

SIGNATURE OF APPLICANT, ATTORNEY, OR AGENT

Firm Name	Locke Liddell & Sapp LLP		
Signature			
Printed name	Martin Korn		
Date	2/17/2005	Reg. No.	28,317

CERTIFICATE OF TRANSMISSION/MAILING

I hereby certify that this correspondence is being facsimile transmitted to the USPTO or deposited with the United States Postal Service with sufficient postage as first class mail in an envelope addressed to: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450 on the date shown below:

Signature			
Typed or printed name		Date	

This collection of information is required by 37 CFR 1.5. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.11 and 1.14. This collection is estimated to 2 hours to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

If you need assistance in completing the form, call 1-800-PTO-9199 and select option 2.